Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

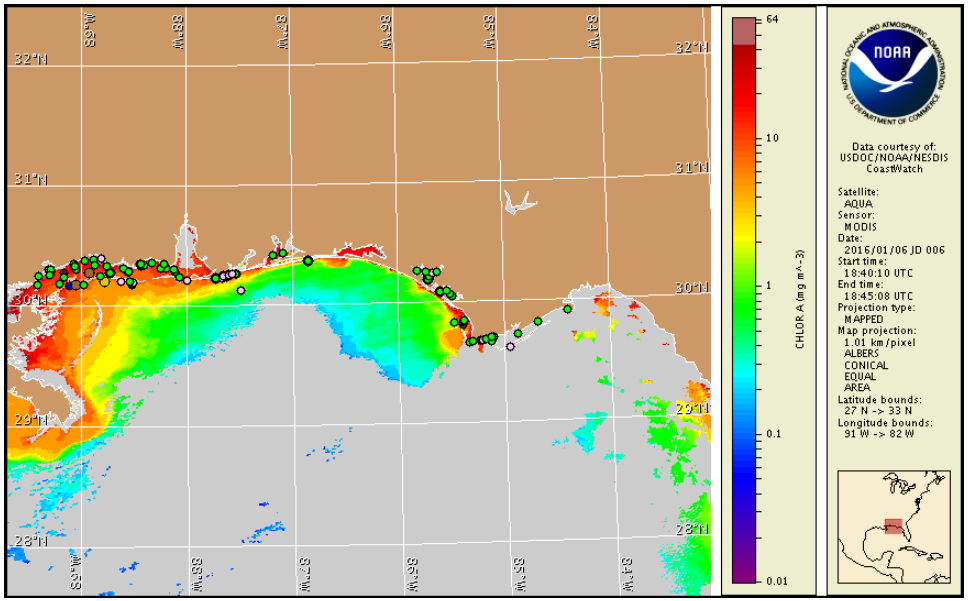
Thursday, 07 January 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 4, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 28 to January 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at:

http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to medium concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore St. Bernard Parish in Louisiana; Harrison and Jackson counties in Mississippi; Mobile and Baldwin counties in Alabama; and portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore Mississippi, Alabama, and northwest Florida Thursday, January 7 to Monday, January 11 is listed below:

County Region: Forecast (Duration)
Harrison County: Low (Th-Sa), Very Low (Su-M)
Jackson County: Moderate (Th, F, M), High (Sa-Su)
Baldwin County: Very Low (Th-F, Su-M), Low (Sa)
Escambia County: Very Low (Th, Su, M), Low (F), Moderate (Sa)
Santa Rosa County: Very Low (Th-F, Su-M), Low (Sa)
Okaloosa County: Very Low (Th-F, Su-M), Low (Sa)
Bay County: Very Low (Th-F, Su-M), Low (Sa)
Bay County, bay regions: Moderate (Th-M)
Gulf County, west bay regions-St. Joseph Bay area: Low (Th-M)
All Other NWFL County Regions: None expected (Th-M)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

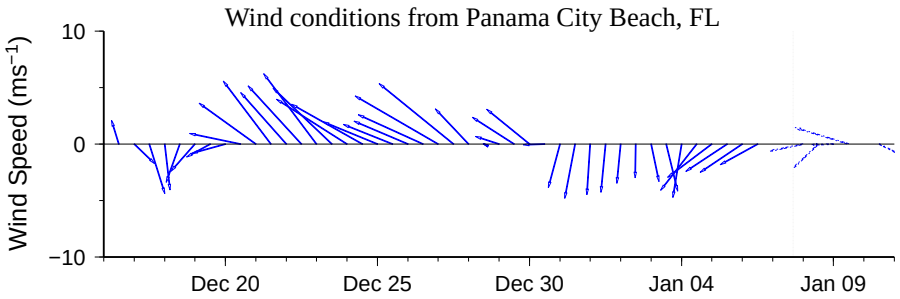
Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Reports of dead fish were received from Gulf County, Florida.

Analysis

Samples collected along- and offshore Louisiana, Mississippi, Alabama, and northwest Florida indicate not present to 'medium' *Karenia brevis* concentrations from St. Bernard Parish, LA to Gulf County, FL. Recent sampling along- and offshore from Harrison County Mississippi through Baldwin County Alabama indicated not present to background *K. brevis* concentrations (MDMR, ADPH; 1/4-5). In northwest Florida, recent sampling within the St. Andrews Bay region of Bay County indicated a decrease in *K. brevis* concentrations to background from 'low b' (FWRI; 1/4). Reports of dead fish were received from Gulf County Florida (MML; 1/4-7). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus.

In recent ensemble imagery (MODIS Aqua, 1/6), patches of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* are visible along- and offshore from Hancock County, Mississippi to Gulf County, Florida.

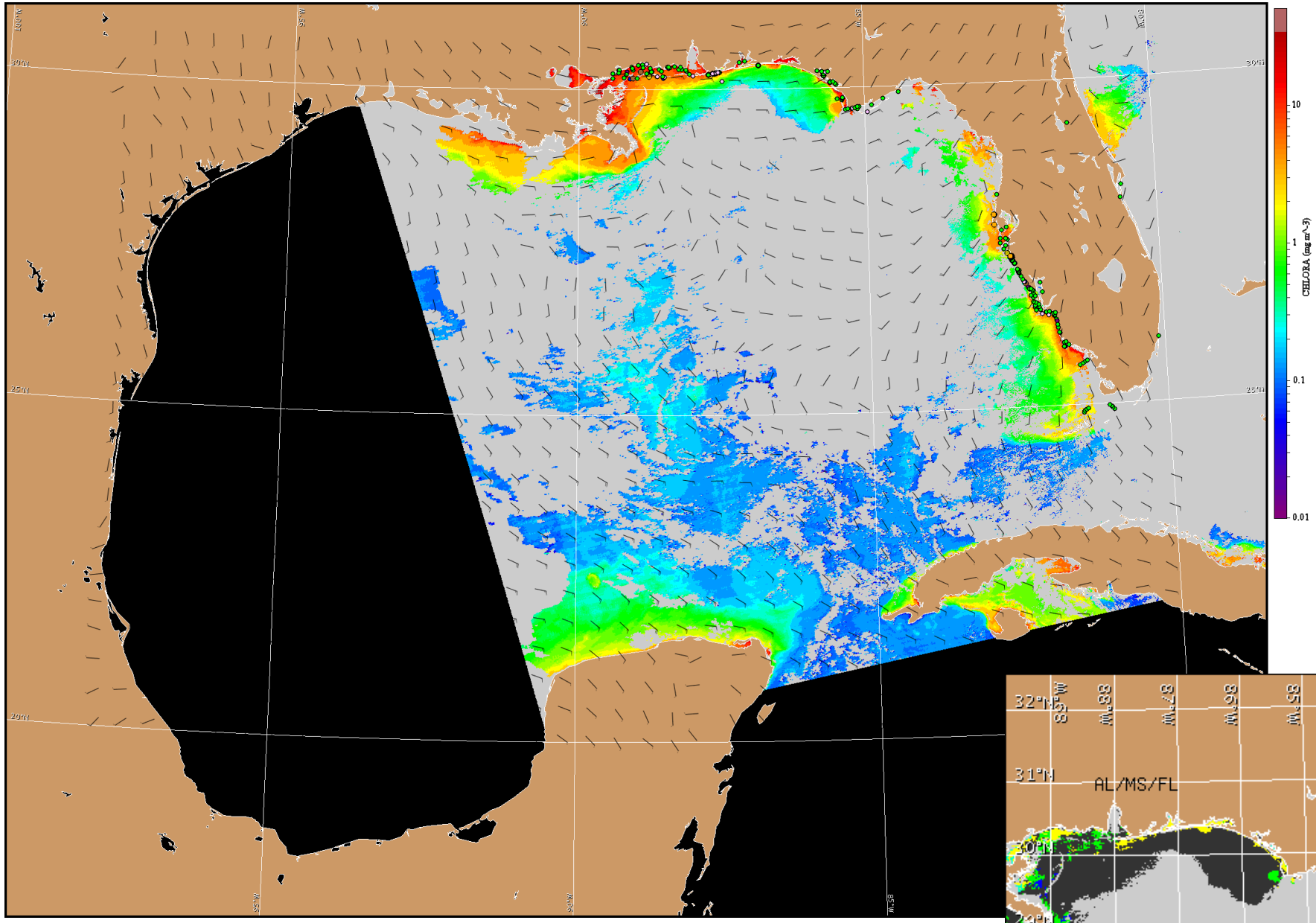
Forecasted winds today through Monday may promote the potential for westerly transport of surface *K. brevis* concentrations along the coasts of Mississippi, Alabama, and northwest Florida. ˜Davis, Yang



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Escambia to Gulf counties: East winds (15kn, 8m/s) today. Northeast winds (10kn, 5m/s) Friday becoming southeast winds (10-15kn, 5-8m/s) Friday night. South winds (15-20kn, 8-10m/s) Saturday becoming west winds (15-25kn, 8-13m/s) in the afternoon and evening. Northwest to north winds (10-15kn) Sunday. Northeast winds (10-15kn) Monday.



Satellite chlorophyll image and forecast winds for January 8, 2016 12Z with points representing cell concentration sampling data from December 28 to January 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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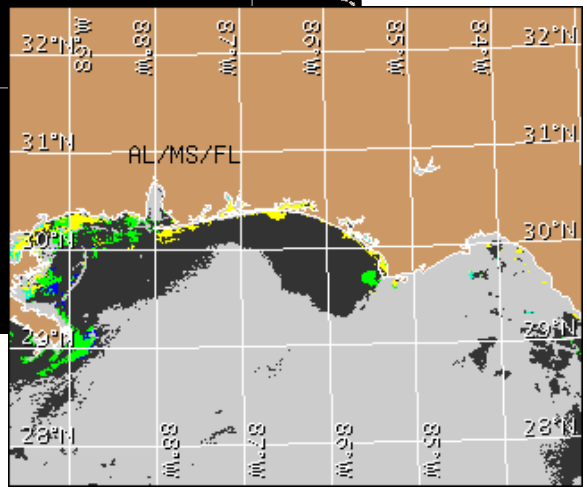

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).